

ABSTRACT

A system and method for performing hydrothermal treatment includes a reactor vessel having a pressure bearing wall. The surface of the pressure bearing wall that faces the reactor chamber is covered by a liner to protect the wall from exposure to temperature extremes, corrosives and salt deposits. The liner is formed with a porous layer and a non-porous, corrosion resistant layer. The corrosion resistant layer is positioned adjacent to the porous layer to seal the porous layer between the corrosion resistant layer and the wall of the vessel. Connectors extend through the wall of the reactor vessel to allow for fluid communication between the porous layer and an externally located pump. A heat transfer fluid can be selectively passed through the porous layer to maintain the temperature of the liner.

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